The effect of tinnitus maskability on the amount of listening effort: a pilot study

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Abstract (200 words)

Aim. Chronic tinnitus can result in comorbid distressing symptoms, such as impaired concentration related to speech intelligibility. Previous research stated that non-auditory central aspects, such as working memory and selective attention, may influence speech intelligibility. Therefore, speech intelligibility may become more effortful for tinnitus patients. A pilot study showed significantly more listening effort in normal-hearing young adults with tinnitus compared to a control group (Degeest et al., 2017). It was hypothesized that an attention shift towards tinnitus and an extra load on working memory may reduce cognitive capacity when performing several tasks. However, tinnitus patients may profit from background noise to mask their tinnitus. Therefore, the present study aims to evaluate the effect of tinnitus maskability on listening effort.

Method. Two groups of 5 tinnitus patients, categorized based on their residual inhibition response (i.e. (partial) positive or negative response) are included and compared with a control group. All subjects are matched for age, gender, hearing thresholds and educational level. A dual-task paradigm is used to evaluate listening effort (Degeest et al.2015).

Results. Data collection is ongoing and will be presented at the conference. Listening effort will be compared between the two tinnitus groups as well as with the control group.

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